

REMARKS

Claims 1-15 are pending in this application. By this Amendment, claims 1, 3, 4, 8 and 15 to overcome informalities. No new matter is added. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 1, objects to several of the claims for informalities. These objections are individually addressed below.

In subparagraph (1), the Office Action indicates that the terms H1 holographic recording and H2 recording are not clear. H1 and H2 recording are terms that are well understood in the art as is evidenced by the attached excerpt from a textbook on the subject of holographic recording which is referred to on page 6, lines 11-15 of Applicants' disclosure. Withdrawal of the objection to these terms is respectfully requested.

In subparagraph (2), a specific feature recited in claim 3 is objected to. Claim 3 is amended to obviate the objection. Withdrawal of the objection to claim 3 is respectfully requested.

In subparagraph (3), the Office Action indicates that the aperture mask having "an" elongated aperture, as recited in claim 5, is not understood because the figures show aperture masks having more than one aperture. The Examiner's attention is directed first to Fig. 5 in which the aperture mask has only one aperture. Additionally, it should be noted that it is well settled in the law that the prefixes "a" or "an," as recited in claims, are considered to refer to "at least one" or "one or more." As such, the use of the term "an elongate aperture" in claim 5 is clear, unambiguous, and supported by Applicants' disclosure. Withdrawal of the objection to claim 5 is respectfully requested.

In subparagraphs (4) and (5), the Office Action objects to certain terms in claims 8 and 15 as being allegedly unclear. Claims 8 and 15 are amended to obviate the objections. Withdrawal of the objections to claims 8 and 15 is respectfully requested.

The Office Action, in paragraph 3, rejects claims 1, 2 and 13-15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,535,023 to Yamazaki. This rejection is respectfully traversed.

Yamazaki teaches a method of photoelectrically reading information recorded in the form of a Fresnel hologram, which makes it possible to eliminate the effect on the reading accuracy of an obstruction on the hologram surface when the recording information is reconstructed by applying a light beam having a small diameter to the hologram in which the surface of the hologram is illuminated by scanning it with a light beam having a cross-section smaller than the hologram recording region, thereby reconstructing reading the same recorded information separately from different hologram regions, thus compensating for momentary disability to reconstruct the recorded information due to a scratch or stain (Abstract). With reference to Fig. 3 of Yamazaki, the Office Action paraphrases the combination of all of the features recited in independent claim 1 in attempting to map features disclosed in Yamazaki to each of the features recited in the pending claims. The analysis of the Office Action fails for at least the following reasons.

Claim 1 recites, among other features, a method comprising: exposing an object to a coherent beam of diffused light; causing the result light to interfere with a reference beam; and recording the result from an interference pattern on or in a record medium, wherein an aperture mask is located upstream or downstream of the object with respect to the direction of the diffused light beam such as different parts of the object are imaged onto respective different, non-overlapping parts of the record medium.

It is unclear to which of these individually recited features the Office Action intends each of the allegedly corresponding features in Yamazaki to correspond. In other words, it is unclear what the Office Action considers to be "the object" and "the aperture mask" located upstream or downstream of the object. If the element 16 of Yamazaki corresponds to the

object recited in claim 1, there is no aperture mask. Element 16 should likely be considered to correspond to the object since it is the light from element 16 in Yamazaki that interferes with the reference beam 13 to form a hologram. On the other hand, if the Office Action is meant to suggest that element 16 corresponds to the aperture mask, then there is no object depicted in Fig. 3. The fact that the rejection is unclear on its face should be enough to render the rejection improper. Regardless, however, of which construction is chosen, it is clear that Yamazaki, as applied by the Office Action, cannot be applied in a manner which includes all the features positively recited in at least independent claim 1.

For at least its failure to teach all of the specifically recited claim features of independent claim 1, Yamazaki cannot reasonably be considered to anticipate the combination of all of the features recited in that claim. Further, claims 2 and 13-15 are also neither taught, nor would they have been suggested, by Yamazaki for at least the respective dependence of these claims on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2 and 13-15 under 35 U.S.C. §102(b) as being anticipated by Yamazaki are respectfully requested.

The Office Action, in paragraph 4, rejects claims 1, 2, 9, 10 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,749,469 to Gayeski et al. (hereinafter "Gayeski"). This rejection is respectfully traversed.

Gayeski teaches eliminating moving noise in a pinhole array employed as a redundancy means in recording a redundant hologram by "situating the hologram recording image at or in the immediate vicinity of the image plane of the pinhole array during the recording of the hologram" (Abstract). With general reference to Fig. 1 of Gayeski, the Office Action alleges that Gayeski can reasonably be considered to teach a combination of all of the features positively recited in independent claim 1, as discussed above.

Despite the assertions to the contrary in the Office Action, there is no suggestion in Gayeski that placing the hologram recording medium at the image plane of the pinhole array would have suggested that sample portions of the object created by the diversion for diffused beams from the pinhole array are illuminated at different and non-overlapping portions of the hologram recording medium. Rather, as is noted, for example, at col. 2, lines 48-50 "[i]t should be noted that wave energy from each pinhole in the pinhole array 114 illuminates the entire object 110" (emphasis added). It is not reasonable based on this explicit disclosure in Gayeski to conclude that the reference teaches, or would have suggested, any feature that could reasonably be considered to correspond to an aperture mask located upstream or downstream of the object with respect to the direction of the diffused light beam such that different parts of the object are imaged onto respective different, non-overlapping parts of the recorded medium as is recited in the pending claims.

For at least its disclosure of a specifically contrary feature to that recited in independent claim 1, Gayeski cannot reasonably be considered to teach, or to have suggested, the combination of all of the features positively recited in independent claim 1. Further, claims 2, 9, 10 and 13 are also neither taught, nor would they have been suggested, by Gayeski for at least the respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

The Office Action, in paragraph 6, rejects claims 3-6, 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over Yamazaki in view of U.S. Patent No. 5,973,807 to Buchkremer et al. (hereinafter "Buchkremer").

Because Buchkremer is not applied in any manner that would overcome the above-identified shortfalls in the application of Yamazaki to the subject matter of independent

claim 1, claims 3-6, 11 and 12 would not have been suggested by this combination of references.

Accordingly, reconsideration and withdrawal of the rejection of claims 3-6, 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over Yamazaki in view of Buchkremer are respectfully requested.

The Office Action, in paragraph 7, rejects claims 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over Yamazaki and Buchkremer and further in view of U.S. Patent No. 5,121,229 to Benton et al. (hereinafter "Benton"). This rejection is respectfully traversed.

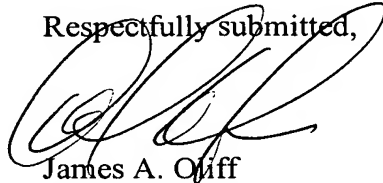
Because Benton is not applied in any manner that would overcome the above-identified shortfalls in the application of Yamazaki and Buchkremer to the subject matter of the pending claims, claims 7 and 8 would not have been suggested by this combination of references for at least their respective dependence on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over Yamazaki, Buchkremer and Benton are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,



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